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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,585	06/03/2005	Josef Eichinger	1454.1587	6834

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

AMINZAY, SHAIMA Q

ART UNIT	PAPER NUMBER
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2618

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09/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,585	EICHINGER ET AL.	
	Examiner	Art Unit	
	Shaima Q. Aminzay	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 11-25 are objected under 37 CFR 1.75(c) as being improper, because of the expressions “not properly received” in independent claim 11, “successful”, “unsuccessful” in independent claim 12, “satisfactory”, “not satisfactory” in dependent claims 13 and 21 used are vague and unclear. The claim limitations should contain the technical features as in the definition of the subject matter in the specification. Claims 13-20, and 21-25 dependents of independent claims 11-12 are objected for the same reason set for claims 11-12. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 11-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Khayrallah (Khayrallah, U.S. Patent 7,113,745).

Regarding claim 11, Khayrallah discloses a method for transmitting data in a radio communication system (*e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, the data is being transmitted in the radio system (10)*), comprising: transmitting data from a transmitting station to a data-receiving station over at least two relay stations (*e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, col 2, ln 23-27, col 3, ln 61-62, col 5, ln 42-45, the communication system (10) includes transmitting data from transmitting station (20) to the data receiving station (50) over at least two relay stations such as repeaters (30 and 40)*), each relay station receiving and forwarding the data (*e.g. Fig. 1-4, Abstract ln 1-4, col 5, ln 42-45, col 3, ln 61-62, col 4, ln 10-23, each of the relay stations such as repeaters(30 and 40) forwards the data*); generating requests for retransmission if the data is not properly received (*e.g. Fig. 1-4, Abstract ln 1-4, col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, if data is not being received*), the requests for retransmission being generated only at the receiving station (*e.g. Fig. 1-4, Abstract ln 1-4, col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6, the receiving station (50) sends inquiry for retransmission*); and retransmitting the data from the transmitting station if a request for retransmission is received from the receiving station (*e.g. Fig. 1-4, Abstract ln 1-4, col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6, the receiving station (50) sends inquiry for retransmission that is being received at the transmitting station (20)*).

Regarding claim 12, Khayrallah discloses the method for transmitting data in a radio communication system (*e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, the data is being*

transmitted in the radio system (10)), comprising: transmitting data from a transmitting station to a data-receiving station over at least two relay stations (e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, col 2, ln 23-27, col 3, ln 61-62, col 5, ln 42-45, the communication system (10) includes transmitting data from transmitting station (20) to the data receiving station (50) over at least two relay stations such as repeaters (30 and 40)), each relay station receiving and forwarding the data (e.g. Fig. 1-4, Abstract ln 1-4, col 5, ln 42-45, col 3, ln 61-62, col 4, ln 10-23, each of the relay stations such as repeaters(30 and 40) forwards the data); acknowledging successful receipt of the data with an acknowledgement (e.g. Fig. 1-4, Abstract ln 1-4, col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6, receiving data notification information is being sent); and retransmitting the data in the event of unsuccessful transmission of the data (e.g. Fig. 1-4, Abstract ln 1-4, col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6, data is being retransmitted to overcome the transmission problems), when the acknowledgement is not received, retransmission of the data being controlled only by the transmitting station (e.g. Fig. 1-4, Abstract ln 1-4, col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6, the data is being retransmitted when transmission having problems and transmitting station controls data transmission).

Regarding claim 26, Khayrallah discloses a relay station of a radio communication station (e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, the relay station such (30 or 40) of the radio communication system (10)), comprising: a receiving device to receive data destined for a receiving station (e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, col 5, ln 63-

67, col 6, ln 13-15, 19-21, 25-59, the receiver (380) receives data to be sending to receiving station (e.g. 50)); an analyzing device to analyze said data with regard to its reception quality and produce a reception result (e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, col 5, ln 33-37, 42-45, 63-67, col 6, ln 13-15, 19-21, 25-59, the processor and controller (e.g. 220, 320) evaluating transmission data with respect receiving quality and generate outcome); and a transmitting device to selectively forward the data to the receiving station, depending on the reception result of the analyzing device (e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, col 5, ln 33-37, 42-45, 63-67, col 6, ln 1-6, 13-15, 19-21, 25-59, the transmitting device (20) chooses the data transmission to the reception station (50) according to the feedback information that is generated).

Regarding claims 13, and 21, Khayrallah teaches all the limitations of claims 11, 12, and further, Khayrallah teaches wherein at least one of the relay stations checks the data received from the transmitting station with regard to reception quality (e.g., col 1, ln 39-45, col 5, ln 33-37, 42-45, 63-67, col 6, ln 13-15, 19-21, 25-59), if the reception quality is not satisfactory, the relay station does not forward said data to the receiving station (e.g. col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6), and if the reception quality is satisfactory, the relay station does forward said data to the receiving station (e.g., col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6).

Regarding claims 14, and 22, Khayrallah teaches all the limitations of claims 13, 12, and further, Khayrallah teaches wherein the relay stations receive the data in parallel and

check the reception quality of the received data (*e.g. col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6*), a first relay station receives the data with acceptable reception quality, and only the first relay station transmits the data to the receiver station (*e.g. col 2, ln 21-27, col 3, ln 22-32, col 4, ln 10-23, col 5, ln 63-67, col 6, ln 1-6*).

Regarding claims 15, and 23, Khayrallah teaches all the limitations of claims 13, 12, and further, Khayrallah teaches wherein error correction and/or error detection is performed in at least one of the relay stations prior to forwarding the data (*e.g. col 1, ln 12-22, col 5, ln 63-67, col 6, ln 1-6*)

Regarding claims 16, and 24, Khayrallah teaches all the limitations of claims 11, 12, and further, Khayrallah teaches wherein a plurality of the relay stations receive the data in parallel (*e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45*), check the reception quality of the data and produce a reception result (*e.g. col 1, ln 39-45, col 5, ln 33-37, 42-45, 63-67, col 6, ln 13-15, 19-21, 25-59*), and in at least a first relay station, a determination is made on whether or not to forward the data based on the reception result of the first relay station and based on the reception result of another relay station (*e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, col 5, ln 33-37, 42-45, 63-67, col 6, ln 13-15, 19-21, 25-59*).

Regarding claims 17, and 25, Khayrallah teaches all the limitations of claims 11, 12, and further, Khayrallah teaches wherein the transmitting station, the receiving station and

at least some of the relay stations belong to a radio communication system communicating on a single frequency (*e.g. col 4, ln 10-23, 54-67, col 5, ln 33-37, 42-45, 63-67, col 6, ln 13-15, 19-21, 25-59*).

Regarding claims 18, and 28, Khayrallah teaches all the limitations of claims 11, 26, and further, Khayrallah teaches wherein the data is forwarded over different parallel paths via different relay stations, and the data is preemphasized and/or deemphasized in the relay stations (*e.g. Fig. 1-4, Abstract ln 1-4, col 1, ln 39-45, col 4, ln 1-42, col 5, ln 33-37, 42-45, 63-67, col 6, ln 1-6, 13-15, 19-21, 25-59*).

Regarding claims 19, and 29, Khayrallah teaches all the limitations of claims 11, 26, and further, Khayrallah teaches wherein the data is forwarded over different parallel paths via different relay stations, and the data is decoded and/or encoded in the relay stations (*e.g. col 1, ln 39-45, 48-50, col 4, ln 1-42, col 5, ln 33-37, 42-45, 63-67, col 6, ln 1-6, 13-15, 19-21, 25-59*).

Regarding claims 20, and 30, Khayrallah teaches all the limitations of claims 11, 26, and further, Khayrallah teaches wherein the data is transmitted in parallel over different paths, and the data is received overlaid at the receiver station and processed jointly (*e.g. col 1, ln 39-45, 48-50, col 4, ln 1-42, col 5, ln 33-37, 42-45, 63-67, col 6, ln 1-6, 13-15, 19-21, 25-59*).

Conclusion

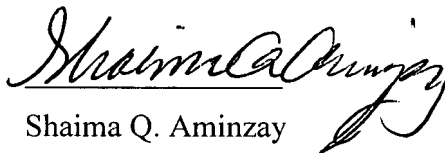
The prior art made of record considered pertinent to applicant's disclosure, see PTO-892 form.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 571-272-7874. The examiner can normally be reached on 7:00 AM -4:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew D. Anderson can be reached on 571-272-4177. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shaima Q. Aminzay
(Examiner)

August 6, 2007



MATTHEW ANDERSON
SUPERVISORY PATENT EXAMINER